

HERMETIC SCHOTTKY RECTIFIERS

4 Amp, 45 Volts

FEATURES

- Qualified to MIL-S-19500/567
- Extremely Low V_F and I_R
- High Surge Capability
- Low Recovered Charge
- Rugged Hermetic Package, No Pressure Contacts

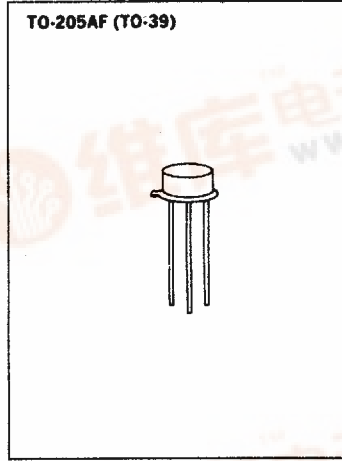
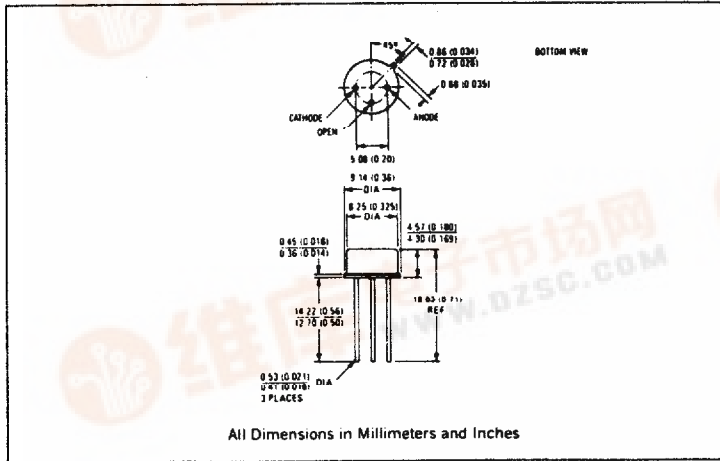
DESCRIPTION

The 1N6492 hermetic Schottky rectifier is ideally suited for output rectifiers and catch diodes in high efficiency, low voltage, high reliability switching power supplies.

ABSOLUTE MAXIMUM RATINGS

Peak Repetitive Reverse Voltage, V_{RRM}	45V
Working Peak Reverse Voltage, V_{RWM}	45V
DC Blocking Voltage, V_R	45V
Non-Repetitive Peak Reverse Voltage, V_{RSM}	54V
Average Forward Current (50% Duty Cycle), $I_{F(AV)}$, $T_A = 25^\circ\text{C}$	1.2A
Average Forward Current (50% Duty Cycle), $I_{F(AV)}$	4A
$T_{CASE} = 100^\circ\text{C}$	
$V_{RWM} = 45V$	
Non-Repetitive Peak Surge Current, I_{FSM}	80A
8.3ms, Half Sine Wave	
Operating and Storage Junction Temperature Range	-65°C to $+175^\circ\text{C}$
Thermal Resistance, Junction to Ambient, $R_{\theta J-A}$	175°C/W
Thermal Resistance, Junction to Case, $R_{\theta J-C}$	12°C/W

MECHANICAL SPECIFICATIONS



Microsemi Corp.
Watertown
The diode experts

ELECTRICAL CHARACTERISTICS (at $T_A = 25^\circ\text{C}$ unless noted)

CHARACTERISTICS	SYMBOL	LIMIT	UNITS	CONDITIONS
Maximum Reverse Leakage Current	I_{RM1}	2.0	mA	$V_{RM} = 45V$ ¹
	I_{RM2}	20	mA	$V_{RM} = 45V, T_A = 125^\circ\text{C}$
	I_{RM3}	200	mA	$V_{RM} = 45V, T_A = 175^\circ\text{C}$
	I_{RM4}	20	mA	$V_{RM} = 45V, T_A = -55^\circ\text{C}$
	I_{RSM}	2.0	μA	$V_{RSM} = 54V$
Maximum Forward Voltage	V_{FM1}	0.92	V	$I_{FM} = 8A$ (pk) ^{1,2}
	V_{FM2}	0.68	V	$I_{FM} = 4A$ (pk)
	V_{FM3}	0.56	V	$I_{FM} = 2A$ (pk)
	V_{FM4}	0.48	V	$I_{FM} = 2A$ (pk), $T_A = -55^\circ\text{C}$
	V_{FM5}	0.48	V	$I_{FM} = 1A$ (pk)
Capacitance	C_T	450	pf	$V_R = 5V$
Surge Current	I_{SURGE}			$I_{FSM} = 80A$ (pk) $V_{RM} = 45V$ (pk) $I_O = 0.75A$ 10 surges of 8.3mSec at 1 minute intervals

¹ Pulse width = 400 μSec , duty cycle = 1%

² Measured with anode and cathode lead length of 0.2" from case

